



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,993	04/06/2006	E. Premkumar Reddy	35926032901US	2185
23973 7590 04/02/2008 DRINKER BIDDLE & REATH ATTN: INTELLECTUAL PROPERTY GROUP ONE LOGAN SQUARE 18TH AND CHERRY STREETS PHILADELPHIA, PA 19103-6996				
			EXAMINER NWAONICHA, CHUKWUMA O	
			ART UNIT 1621	PAPER NUMBER
			MAIL DATE 04/02/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/574,993

**Applicant(s)**

REDDY ET AL.

**Examiner**

CHUKWUMA O. NWAONICHA

**Art Unit**

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2007 and 08 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27, 32, 36, 37, 69 and 77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 32, 36, 37, 69 and 77 is/are rejected.
- 7) ☒ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Current Status***

1. This action is responsive to Applicants' amendment of 20 December 2007 and 8 February 2008.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 1-27, 32, 36, 37, 69 and 77 are under active consideration in the application.
4. The 112 rejection of claims 32 and 37 is withdrawn following applicants amendments.

Applicants' arguments filed 20 December 2007 and 8 February 2008 have been fully considered but they are not persuasive because the specification, while being enabling for specifically treating breast cancer, prostate cancer, lung cancer, colorectal cancer, does not reasonably provide enablement for treating the diseases recited in 36 for the reason stated in the previous Office Action.

***Claim Objection***

Claim 36 is objected because the claim recites "colorectal skin". It is not clear if Applicants intend to write "colorectal, skin". Clarification is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

Art Unit: 1621

ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

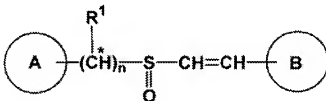
USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwan et al., {1-Alkenesulfinyl Chlorides: Synthesis, Characterization, and Some Substitution Reactions, Journal of Organic Chemistry (1998), 63(22), 7825-7832}.

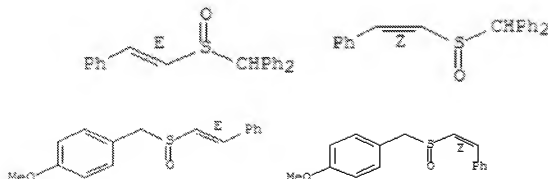
Applicants claim the compounds of the general formula 1; wherein all the variables are as defined in the claims.



formula 1

**Determination of the scope and content of the prior art (M.P.E.P. §2141.01)**

Schwan et al. teach the compounds as shown below. Also, see the compound in the abstract.



**Ascertainment of the difference between the prior art and the claims (M.P.E.P.,**

**§2141.02)**

Applicants claimed the compound of the general formula 1 differs from the teaching of the prior art references in that the instantly claimed compound of the general formula 1 is a homolog of the prior arts compounds.

**Finding of prima facie obviousness--rational and motivation (M.P.E.P., §2142-2143)**

The instantly claimed compounds of the general formula 1 would have been suggested to one of ordinary skill because one of ordinary skill wishing to obtain the compounds of the general formula 1 is taught to select the compounds of Schwan et al.

One of ordinary skill in the art would have a reasonable expectation of success in practicing the instant invention by varying the position of the substituent (methyl group) on ring B of the general formula 1 to arrive at the instantly claimed compounds. Said person would have been motivated to practice the teaching of the reference cited because sulfoxides compounds are employed in making sulfoxide derivatives and a

Art Unit: 1621

new family of sulfur acid derivatives. Additionally, the prior arts compounds are homologs of the claimed compounds of the general formula 1, and homologs are obvious. The instantly claimed invention would therefore have been obvious to one of ordinary skill in the art.

### ***Double Patenting***

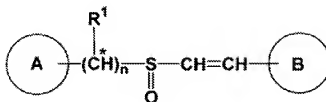
The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

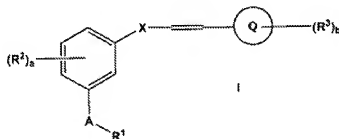
Claims 1-27, 32, 36, 37, 69 and 77 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 8, 94, 95, 97-117, 122, 128 and 130-132 of copending Application No. 10/592,604 in view of Singh et al. This is a provisional obviousness-type double patenting rejection.

Applicants claim a diphenyl heterocycle compound and its pharmaceutical composition of formula 1,



formula 1

wherein the variable B is heteroaryl and the other variables are as defined in the claims while the copending Application No. 10/592,604 teaches the compound shown below and its pharmaceutical acceptable salt; wherein the variables are defined in the claims. See claims 1-6, 8, 94, 95, 97-117, 122, 128 and 130-132.



Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims overlaps substantially with the scope of claims 1-6, 8, 94, 95, 97-117, 122, 128 and 130-132 of the copending Application No. 10/592,604, and the genus of the copending Application No. 10/592,604 encompasses the species in the presently claim invention; wherein the variable X in the copending Application No. 10/592,604 is -CHRY- and Y is S=O. The difference is not a patentable distinction because the copending Application No. 10/592,604 teaches the elements of the claimed invention with sufficient guidance, particularity, and with a reasonable expectation of success, that the invention would be *prima facie* obvious to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne (Bonnie) Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chukwuma O. Nwaonicha/  
Examiner, Art Unit 1621

(for)

/Sikarl A. Witherspoon/  
Primary Examiner, Art Unit 1621

---

Yvonne (Bonnie) Eyler  
Supervisory Patent Examiner,  
Technology Center 1600